region as a whole, minimizes obtainable standard errors, and assures enough cases in each subarea to make meaningful comparisons.

The sampling design was based on advice from a statistical consultant and our advisory committee. We chose to use a disproportionate stratified random sample. The counties making up the universe were stratified into five areas: Mountain, Piedmont, Coastal Plain, Tidewater, and Virginia. The areas within North Carolina are standard geographic regions and have been used extensively in research by the authors, as well as others. The counties included within each are presented in Table 1. The number of cases for each subarea was generated using the formula: N_h^2, which is the proportionality factor applied to the number of residents in each subarea. The 1990 population and proportionality factors for the regions are:

	Population	Proportionality Factor
Mountain	948,178	3.94
Piedmont	3,623,181	5.15
Coastal Plain	1,389,177	4.25
Tidewater	668,101	3.67
Virginia	814,047	3.82
Total	7,442,684	20.83

A total sample size of 1,100 was determined to be sufficient to represent this universe, based on the availability of funds. Multiplying the sample size (1,100) by the proportionality factor of each subarea and dividing by the total proportionality factor (20.83) results in the anticipated number of cases: 208 for the Mountain, 272 for the Piedmont, 224 for the Coastal Plain, 194 for the Tidewater and 202 for Virginia. Since a disproportionate stratified random sampling technique was employed to generate the sample, it was necessary to adjust the results for the region as a whole. By applying weights to the data, we were able to generalize to the entire area.